How can teachers and schools promote the educational achievement of children in care?

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Outline

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2. Resilience & role of teachers & schools
3. International problem of frequently low educational achievement of young people in care
4. How can we raise educational achievement among young people in care?
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1. Overview of Ontario Looking After Children (OnLAC) Project, 2000-present

- Mandated to monitor service needs & developmental outcomes in Ontario, on three levels: young person, organization, & province
- Approximately 7,200 young people in care for a year or more (mainly "Crown Wards"), ages 0-21+, are monitored each year
- Canadian adaptation of UK-originated approach
- 8 outcome domains:

  Health; education; identity; family & social relationships; social presentation; emotional & behavioural development; self-care skills; developmental assets
- Goal: high-quality "corporate" (substitute) parenting & good outcomes
- Resilience-based & outcome-focused
- Looking After Children is a "third-generation" and unique large-scale vehicle of resilience (Masten)

2. What is resilience, and what role do teachers and schools have in bringing it about?

2.1 What is resilience? What role do teachers & schools have?

- 1970s: researchers noted that many children at high risk of developing psychopathology were developing well
- Resilience = good--or at least "OK"—outcomes, in spite of serious threats to adaptation or development (Masten, 2001)
- Resilience = achievement of positive adaptation despite exposure to significant threat or severe adversity (Luthar et al., 2000)
- Resilience (vs competence) involves 2 key criteria:
  - ***Positive adaptation*** (i.e, good developmental outcomes), &
  - ***Serious adversity*** (i.e., significant risk to development)
- Resilience can be both:
  - A positive developmental outcome, at one point in time, or
  - A positive developmental process and trajectory over time

Specific criteria of resilience (good outcomes) for a young person in care

- ***Academic achievement*** (e.g., grades, test scores, staying in school, graduating from high school)
- ***Conduct*** (rule-abiding vs. anti-social)
- ***Peer acceptance & friendship***
- ***Normative mental health*** (few symptoms of internalizing or externalizing behaviour)
- ***Involvement in age-appropriate healthy activities*** (e.g., extracurricular activities, sports, community service)

Recurring protective factors that promote resilience in children & youth (Masten)

- ***Within the child:***
  - Good cognitive skills, including problem-solving & attention
  - Easy temperament, adaptable personality
  - Positive self-perception & self-confidence
  - Faith, positive outlook, and sense of meaning in life
  - Good emotional self-regulation & impulse control
  - Talents valued by self & society
  - Good sense of humour
  - General appeal or attractiveness to others

Recurring protective factors that promote resilience in children & youth (cont'd)

- ***Within the family:***
  - Close relationships with caregiving adults
  - Authoritative parenting/caregiving (i.e., high warmth/responsiveness & consistent monitoring/supervision)
  - Positive family climate & low discord between parents/carers
  - Organized home environment
  - More advanced level of education of parents/carers
  - Parents'/carers' involvement in child's education
  - Socioeconomic advantages

Recurring protective factors that promote resilience in children & youth (cont'd)

- ***Within interpersonal environment*** (within or outside family):
  - Close relationships to competent, prosocial, & supportive adults (in addition to parents/carers)
  - Connections to prosocial & rule-abiding peers

Recurring protective factors that promote resilience in children & youth (cont'd)

- ***Within the community:***
  - Effective schools
  - Ties to prosocial organizations (schools, clubs, scouting, etc.)
  - Neighbourhoods with high collective efficacy
  - High levels of public safety
  - Good emergency social services (e.g., child protection)
  - Good public health, health care, social services

Many young people in care in Ontario report positive experiences (in last 12 months) related to carers or school

Percentage of young people in care reporting:

96%: Having had someone in my life who really listens to me
94%: Enjoying that foster parents/other carers spent time with me
93%: Realizing that my foster parents/other carers care about me
93%: Feeling included in foster family/other carer activities and outings
92% Having comforting routine in my life (e.g., supper time, bed time)
89%: Making new friends at school or elsewhere
86%: Feeling trusted by my foster parents/other caregivers
85%: Having good teachers at school
82%: Having a say in things that affect my life
81%: Having strong relationship with supportive adults other than carers
81%: Going on a fun trip
79%: Having stability in my living arrangements since coming into care
77%: Going to a fun summer or weekend camp
75%: Enjoying school
75%: Enjoying participating in a school or community club or team
72%: Receiving medal, trophy, certificate (e.g., sports, music, scouts)

3. International problem of frequently low educational achievement of young people in care

Low educational achievement of many young people in care: UK

Jackson (2007):

- Widespread educational under-performance
- More attention needed to key role of foster parents & other carers in improving educational performance
- Care system needs to put greater emphasis on educational achievement
- Recent high-prioity policy changes on education (including VSH initiative)

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Low educational achievement of many young people in care: USA

Young people in care (Trout et al., 2008):

- Are 3 times more likely to be in special education
- Up to 80% said by teachers to be at risk academically & performing below grade level
- Many require intensive academic assistance

Low educational achievement of many young people in care: Canada

- Flynn et al. (2013): Among young people in care aged 10-17 in the OnLAC project:
  - 46% were behind the grade level expected for their age
  - 52% were at their expected grade level
  - 2% were ahead of their expected grade level

- Only 44% graduate from secondary school in usual 4-5 year time limits (vs 82% in general population)

4. How can we raise educational achievement among young people in care?

4.1. Tutoring by volunteers (Ritter et al.,2010) and in schools (Slavin et al.,, 2010)

4.2 What else can teachers & schools do?

4.3 Tutoring RCT in Ontario for children in care

Tutoring was viewed favourably in two reviews of interventions to improve educational outcomes of young people in care

- Scoping review, from Sweden (Forsman &Vinnerljung, 2012):
  - 9 of 11 interventions produced positive results
  - 4 of 5 tutoring interventions had positive findings
- A systematic review, from UK (Liabo, Gray, & Mulcahy, 2012):
  - 11 studies reviewed, including 3 of tutoring
  - Individual tutoring was popular with social workers and chidren in care, in the evaluation of the VSH pilot (Berridge et al., 2009)

Magnitude of effect size needed for an educational intervention to be defined as effective

- Effect size:
  - Magnitude of effect of an intervention
  - Cohen's *d* or Hedges *g* (nearly identical)
- Criteria used to define an intervention as "effective":
  - What Works Clearinghouse (2011): **0.25**
  - Slavin (2010): **0.20**
  - Lipsey et al. (2012): average (median) effect sizes:
    - For individual interventions: **0.29**
    - For small-group interventions: **0.22**
    - Classroom: **0.08**
    - Whole school: **0.14**
    - Overall: **0.18**

Ritter et al. (2009): Tutoring of children in the general population by adult volunteers is effective

In 21 randomized studies with children in the general population, tutoring produced positive results:

- Average (mean) effect sizes:
  - Reading overall (*d* = 0.30)
  - Reading oral fluency (*d* = 0.30)
  - Reading letters & words (*d* = 0.41)
  - Reading comprehension (*d* = 0.18)
  - Writing (*d* = 0.45)
  - Mathematics (*d* = 0.27)

In UK, Education Endowment Fund reported on results of two recent RCTs with students in general population, carried out with teaching assistants

- Switch-on Reading – a lIteracy intervention
  (ES = 0.24)
- Catch Up Numeracy – a math intervention
  (ES = 0.21)

Tutoring in schools (Slavin et al, 2010): Educators Guide - Identifying What Works for Struggling Readers (www.bestevidence.org)

Key findings with struggling readers, grades K-5:

1. **One-to-one tutoring works:**
    - Teachers using Reading Recovery: mean ES = 0.23
    - Teachers using phonetics: mean ES = 0.60
    - Teaching assistants: mean ES = 0.38
    - Volunteers: mean ES = 0.16
    - Volunteers using phonetics: mean ES = 0.50

Tutoring in schools (cont'd) (Slavin et al, 2010)

2. One-to-one phonetics for first graders is highly effective, but classroom interventions must continue afterwards

3. Small-group tutorials can be effective (mean ES = 0.31), but are not as effective as one-to-one tutoring by teachers or TAs

4. Changes in the way teachers teach (e.g., inclusion of cooperative learning & phonics-oriented class programs) can be very effective (mean ES = 0.56)

5. Instructional technology (e.g., computer-assisted software to help the child with reading) is not effective (mean ES = 0.09)

Greg Brooks' UK synthesis of literacy interventions for children (4th ed.)

- Ordinary teaching ('no treatment') does not enable children with literacy difficulties to catch up.
- Several reading & writing interventions work well
- Phonics are important, within a broader approach
- Children's comprehension can improve if targeted
- Trained teaching & learning assistants can be very effective
- High expectation of progress are realistic: doubling the rate of normal progress is attainable

What else can teachers & schools do to help improve the educational outcomes of children in care?

- Provide ECE for children in care under the age of 5
- Ensure school stability; enroll children quickly after a change
- Promote high expectations & regular school attendance
- Provide high-quality special education when needed
- Reduce grade retention, which predicts dropping out
- Provide encouragement & financial support for PSE
- Provide professional development & training to teachers and TAs in one-to-one & small-group tutoring & in evidence-based classroom instructional strategies (e.g., cooperative learning)

Our randomized trial of tutoring with children in care, aged 6-13, in Ontario, in 2008-2009

- **Tutoring method: Direct-instruction**
  - Well-organized and structured method of teaching reading & math
  - For special & general education students
  - See **National Institute for Direct Instruction** web site (http://www.nifdi.org/)
- Michael Maloney's ***Teach Your Children Well:***
  - DI-based (http://www.maloneymethod.com/)
  - Combined with behavior management
  - Uses tutor training & manuals, learn-to-read series of books, workbooks, math CD-ROM

Our randomized effectiveness trial of direct-instruction tutoring in Ontario (2008-2009) (Flynn et al., 2012)

- **Collaboration between:**
  - 9 local Children's Aid Societies in Ontario &
  - University of Ottawa (CRECS)
- **Two main questions:**
  1. *Does individual direct-instruction tutoring help children living in foster care to catch up in reading & math?*
  2. *Do girls and boys benefit equally from direct-instruction tutoring?*

Method used in our tutoring RCT

- **Participants: 77 foster children**
  - Children in foster care (grades 2-7, ages 6-13) and their foster parents (tutors)
  - Randomly assigned to control or intervention groups, equivalent at pre-test
- **2008-2009 school year**
  - Wait-list control group (*n* = 35)
  - Intervention group (*n* = 42): Tutoring by foster parents, using Maloney's TYCW method, for 25-30 weeks, 3 hrs/week

Method used in our tutoring RCT (cont'd)

- **Outcome measure: Wide Range Achievement Test *(WRAT4):***
  - Word Reading
  - Sentence Comprehension
  - Reading Composite
  - Spelling
  - Math Computation
- **Mental health measures**

Analysis sample in our tutoring RCT

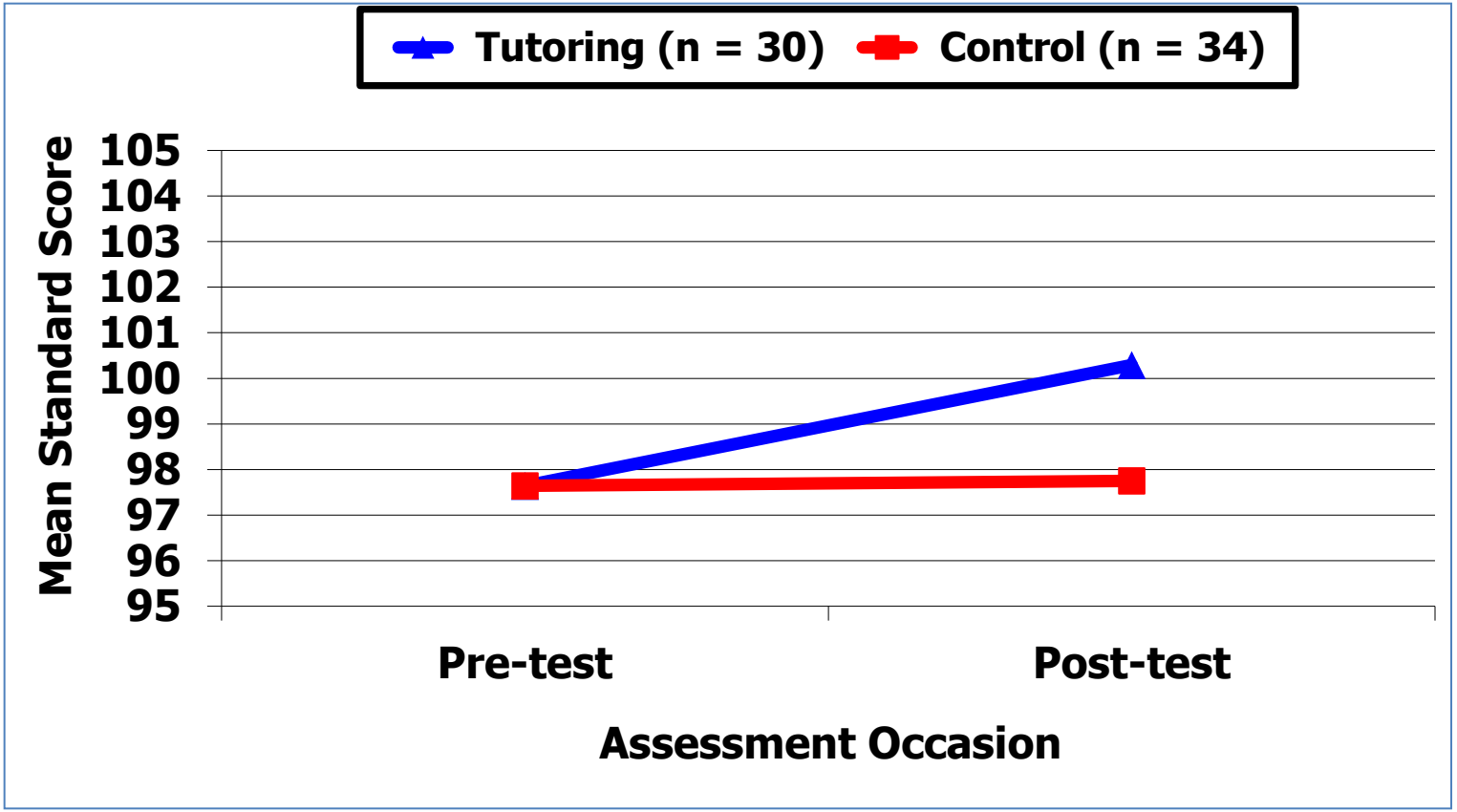
- **Foster children reassessed at post-test:**
  - Total *N* = 64
  - 30 children who had actually received the tutoring intervention
  - 34 children in wait-list control group (who were able to get tutoring during the following school year)
- Intervention & control groups were still equivalent, despite attrition

Results of tutoring RCT

- **Question no. 1:**

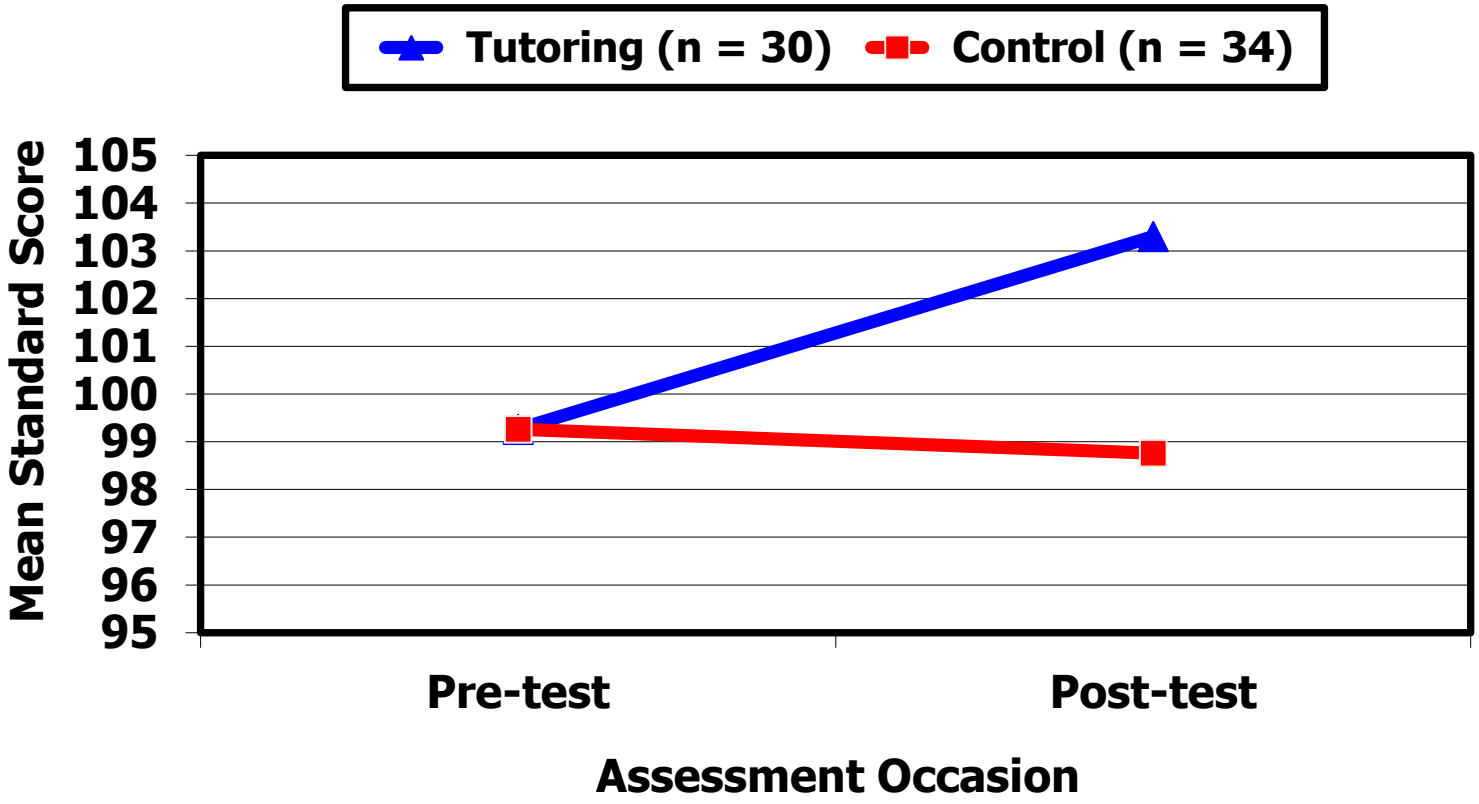
  Does individual direct-instruction tutoring help children living in foster care to catch up in reading & math?

WRAT4 Word Reading: Results at post-test (*N* = 64)



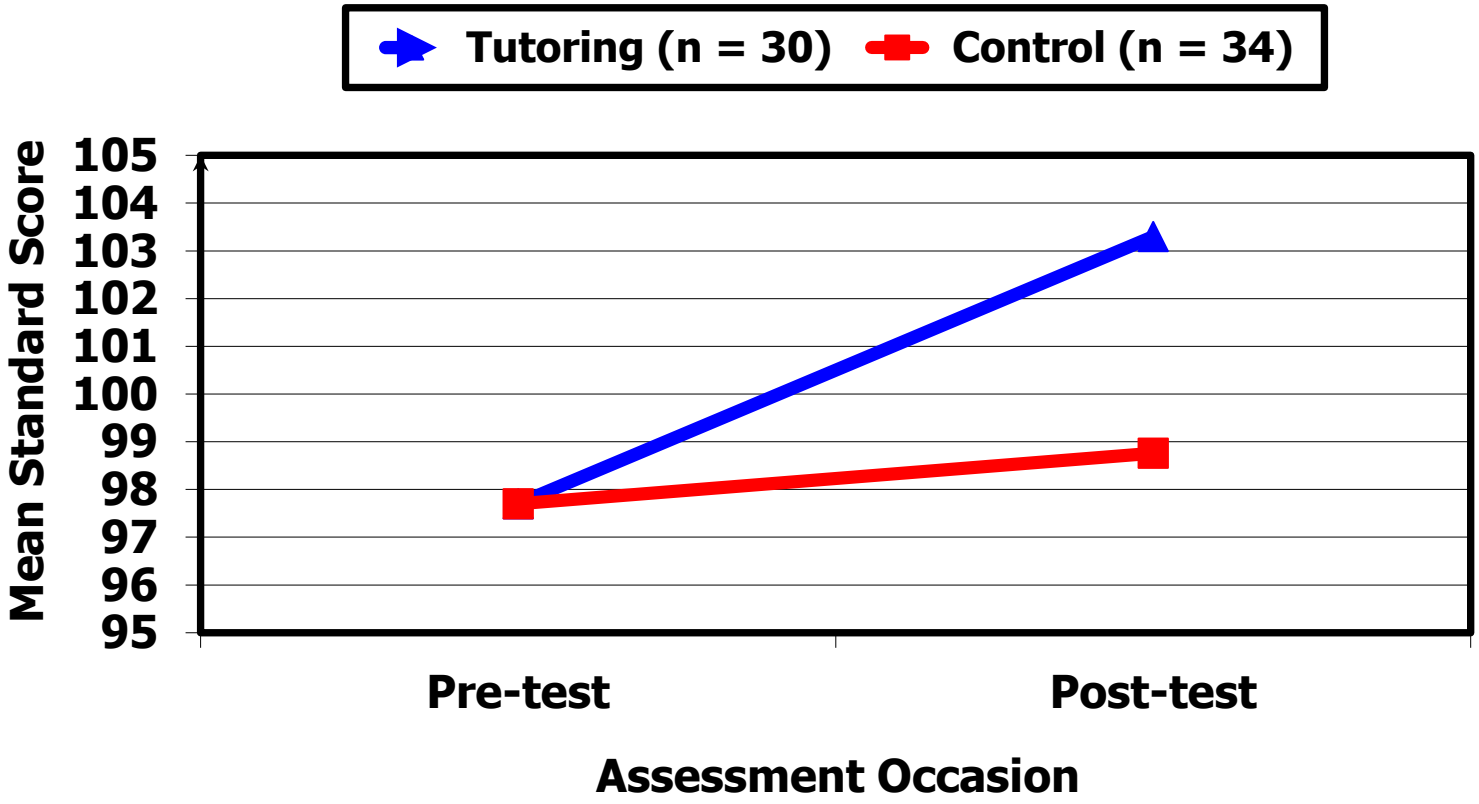
(*g* = .19, *p* = .19, 1-tailed, *ns*;
post-test scores adjusted for pre-test scores)

WRAT4 Reading Comprehension: Results at post-test (*N*=64)



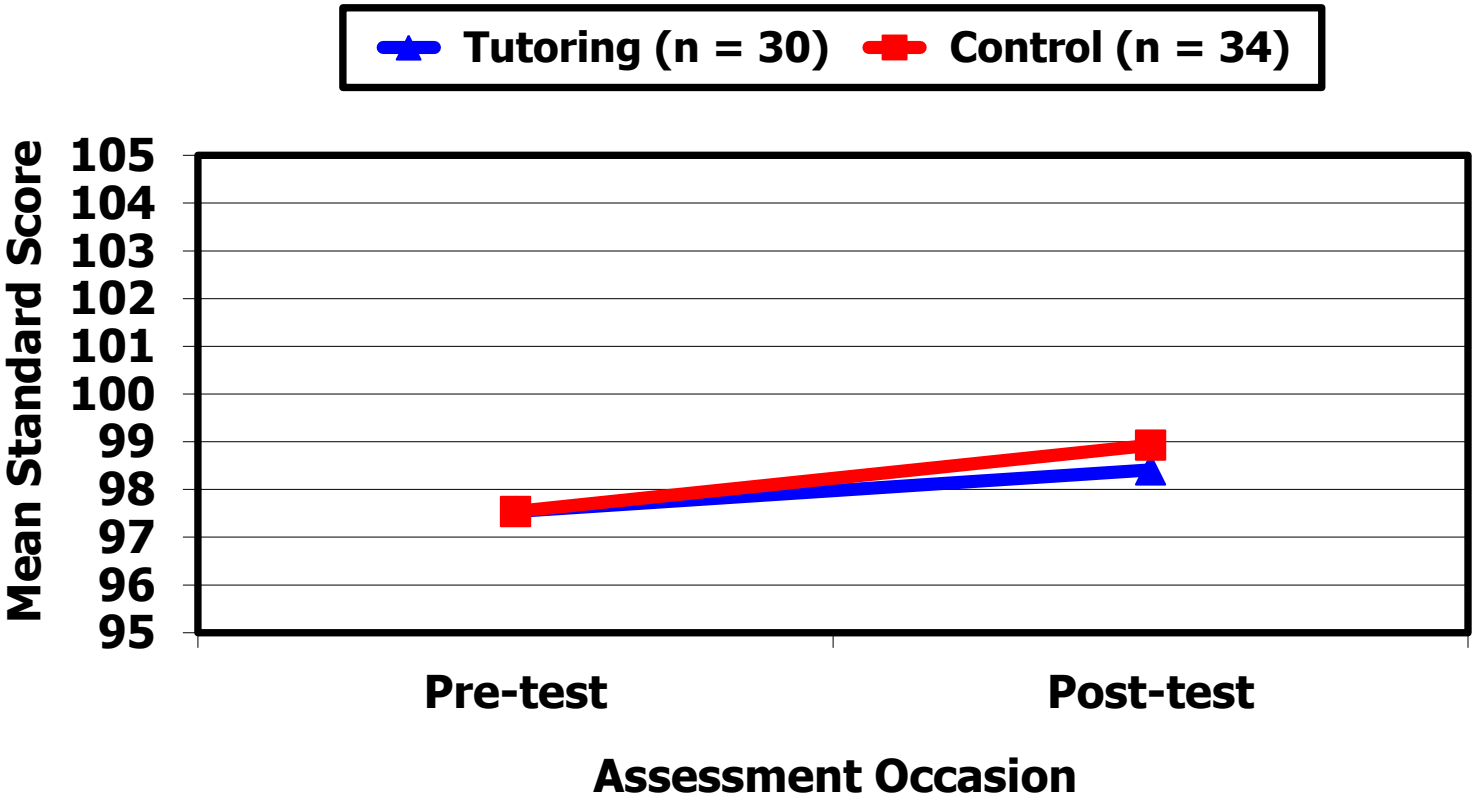
(*g* = .38, *p* = .035, 1-tailed;
post-test scores adjusted for pre-test scores

WRAT4 Reading Composite: Results at post-test (*N* = 64)



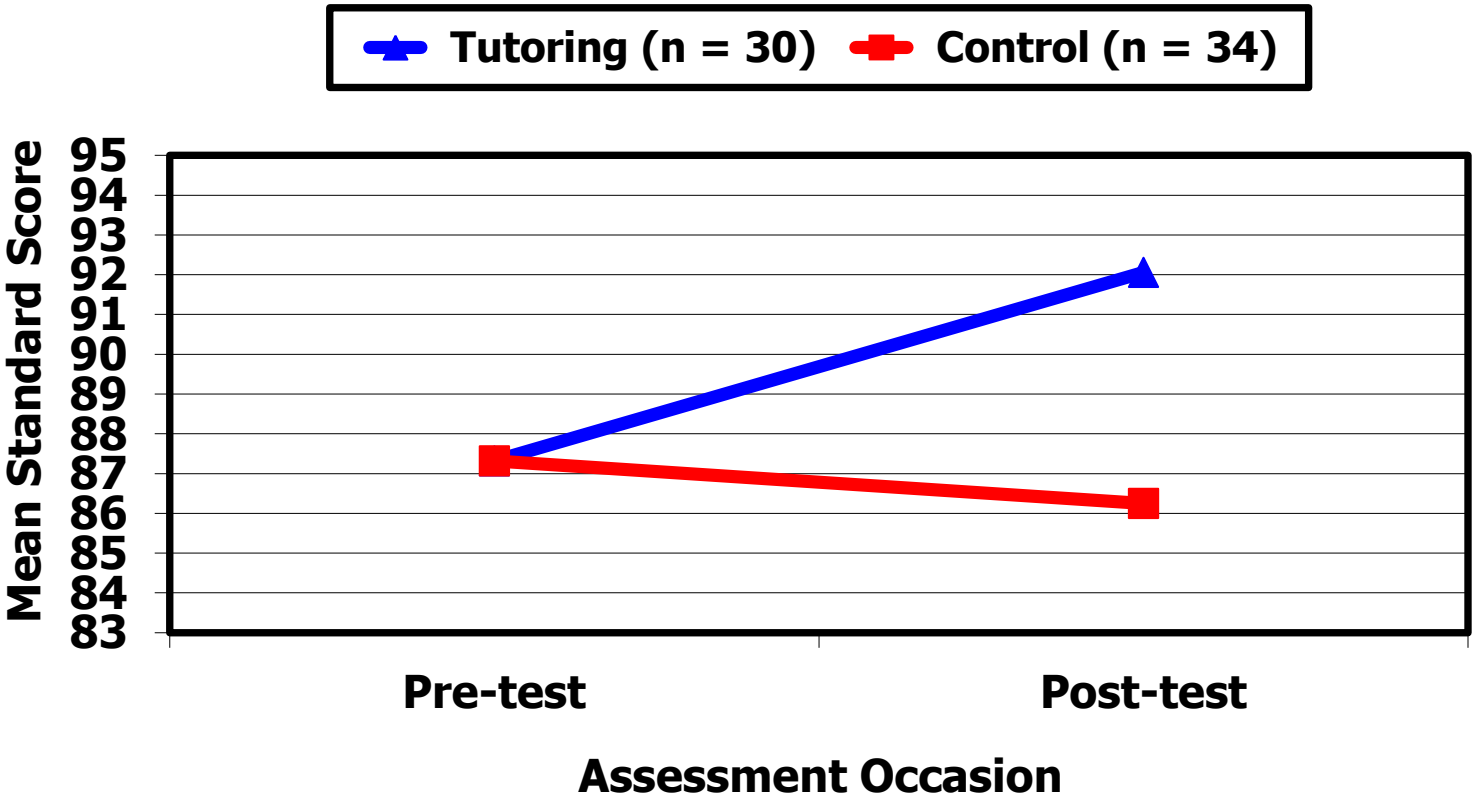
(*g* = .29, *p* = .096, 1-tailed;
post-test scores adjusted for pre-test scores

Spelling:
Results at post-test (*N* = 64)



(*g* = -.08, *p* = .37, 2-tailed, *ns*;
post-test scores adjusted for pre-test scores)

WRAT4 Math Computation: Results at post-test (*N* = 64)



(*g* = .46, *p* = .009, 1-tailed;
post-test scores adjusted for pre-test scores)

Summary regarding question 1

- Tutoring produced statistically significant and substantively important gains in:
  - **Reading (Sent. Comprehension):** ***g*** **= 0.38**
  - **Reading (Reading Composite):** ***g*** **= 0.29**
  - **Math (Math Computation):** ***g*** **= 0.46**
- Effect sizes were about as large as effects of tutoring with students in general population
- Foster-parent tutors had mostly favourable attitude regarding the direct-instruction tutoring method used:
  - 79% would recommend it, without hesitation
  - 14% would recommend it, with some hesitation
  - 7% would not recommend it

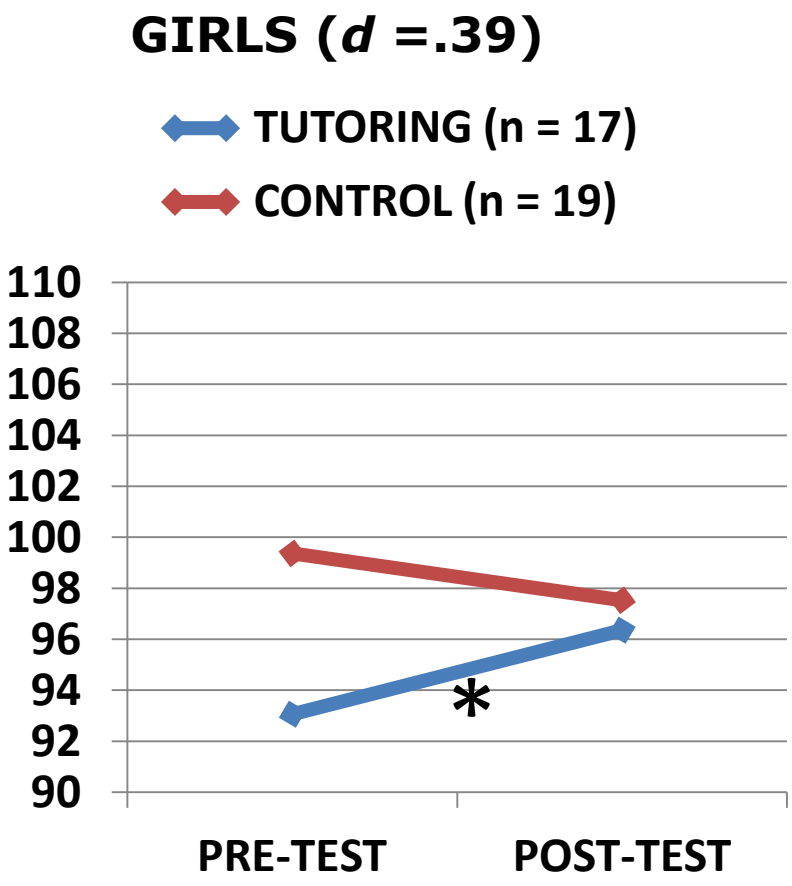
Results of tutoring RCT (continued)

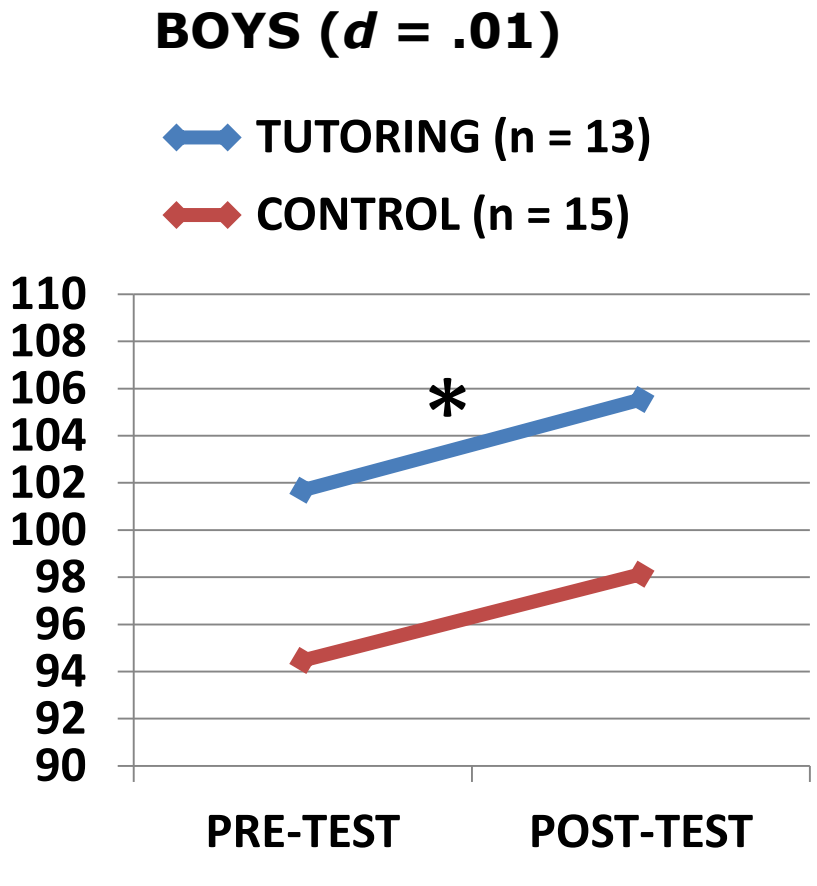
- **Question no. 2:**

  Do girls and boys benefit equally from direct-instruction tutoring?

WRAT4 Word Reading:

Pre/post change, by gender & condition

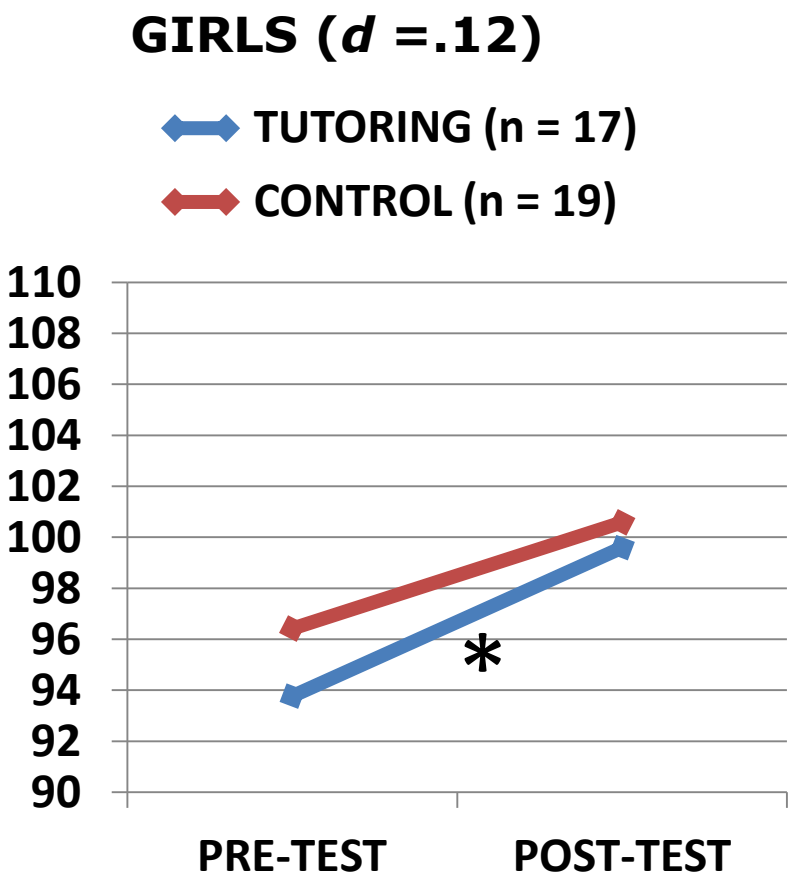


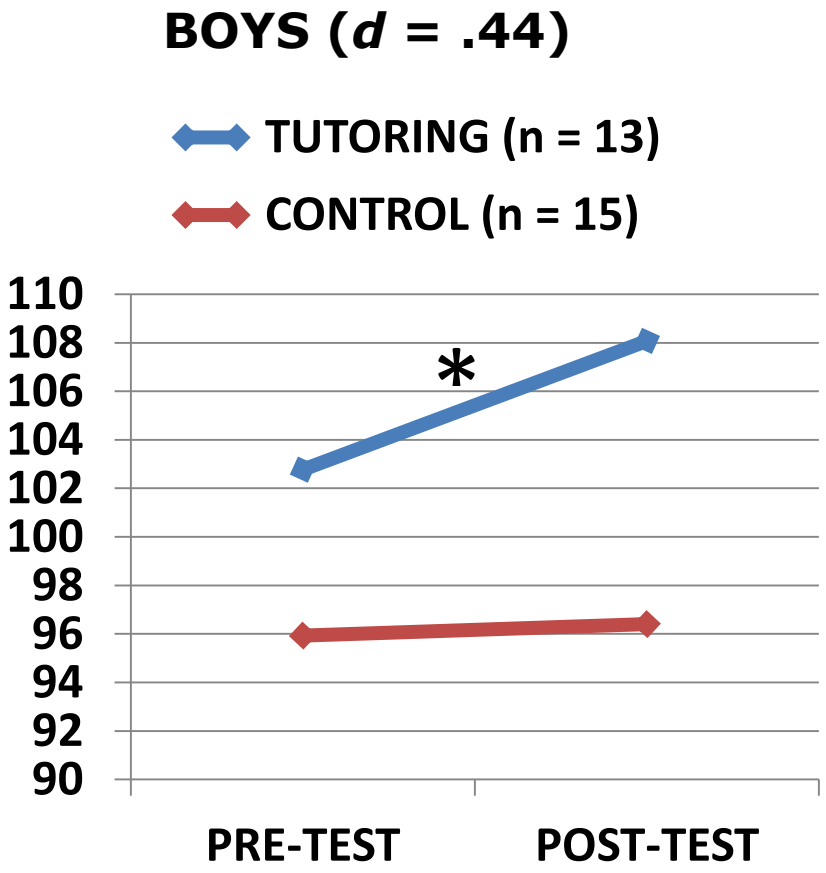


(*$p < .05$, 2-tailed)

WRAT4 Sentence Comprehension:

Pre/post change, by gender & condition

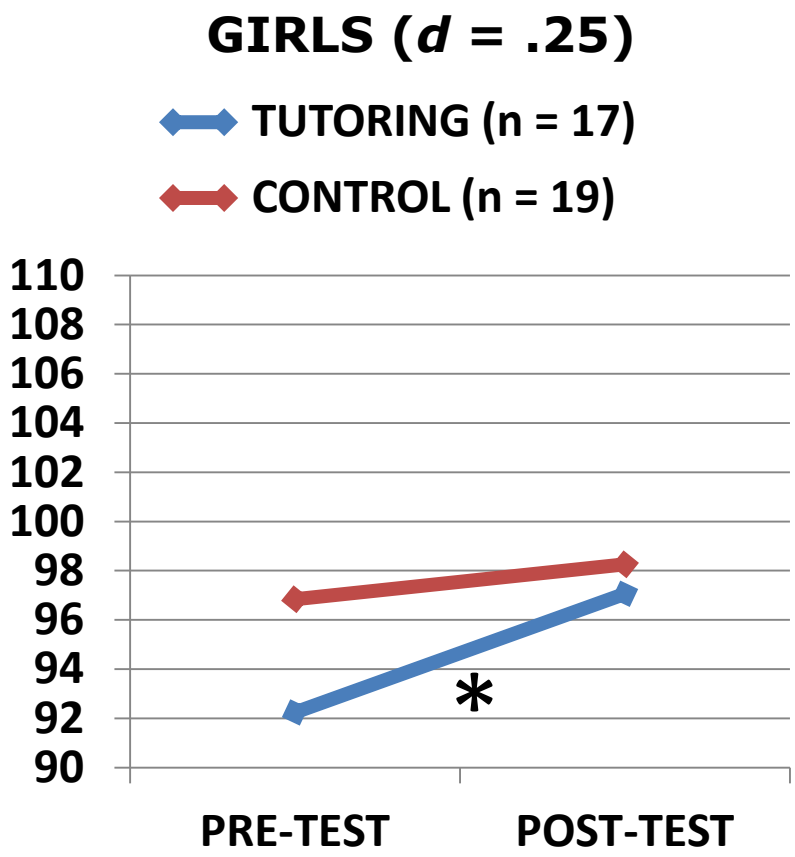


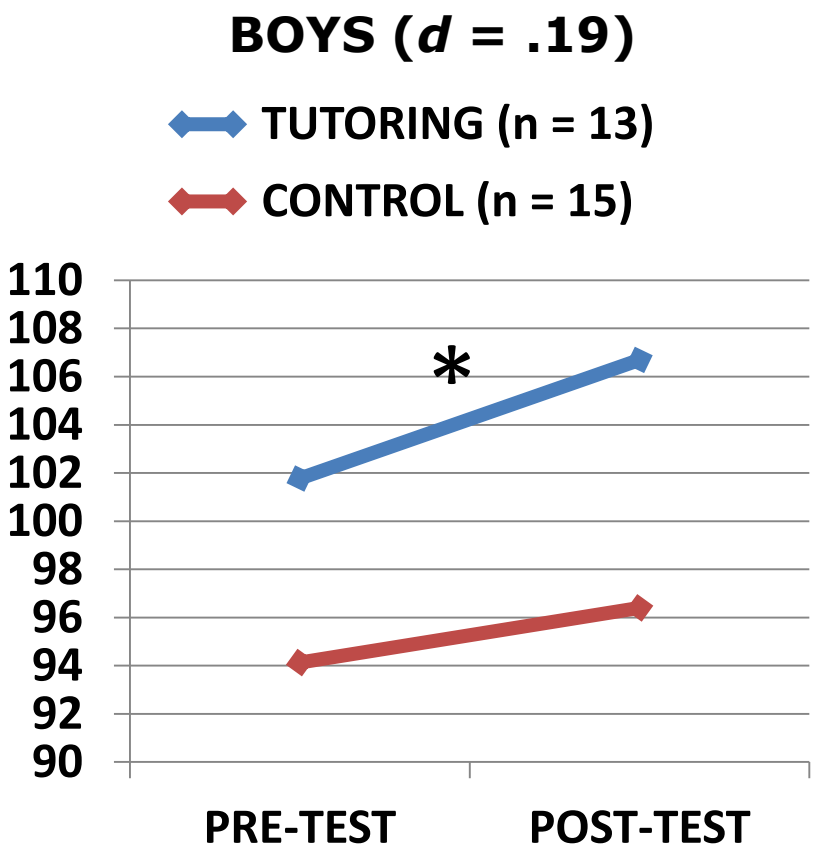


(*$p < .05$, 2-tailed)

WRAT4 Reading Composite:

Pre/post change, by gender & condition

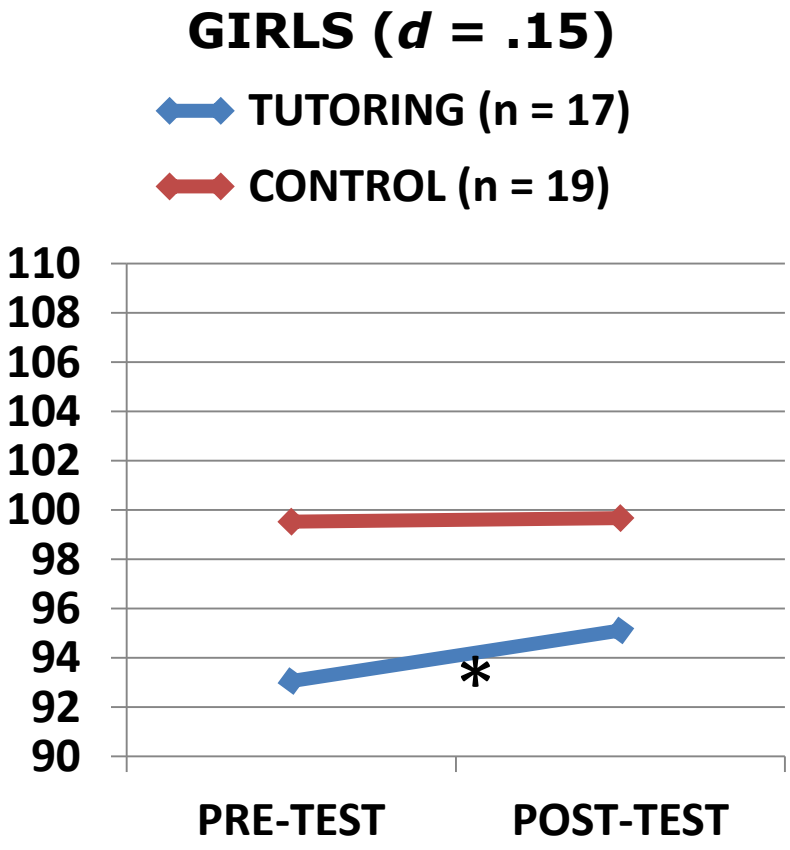


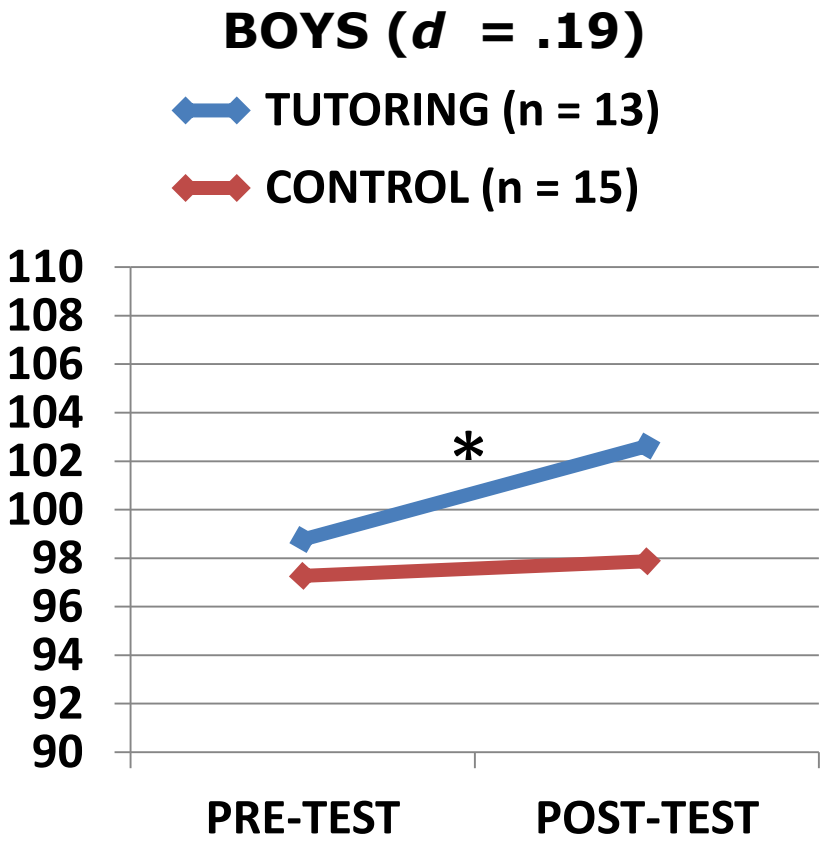


(*$p < .05$, 2-tailed)

WRAT4 Spelling:

Pre/post change, by gender & condition

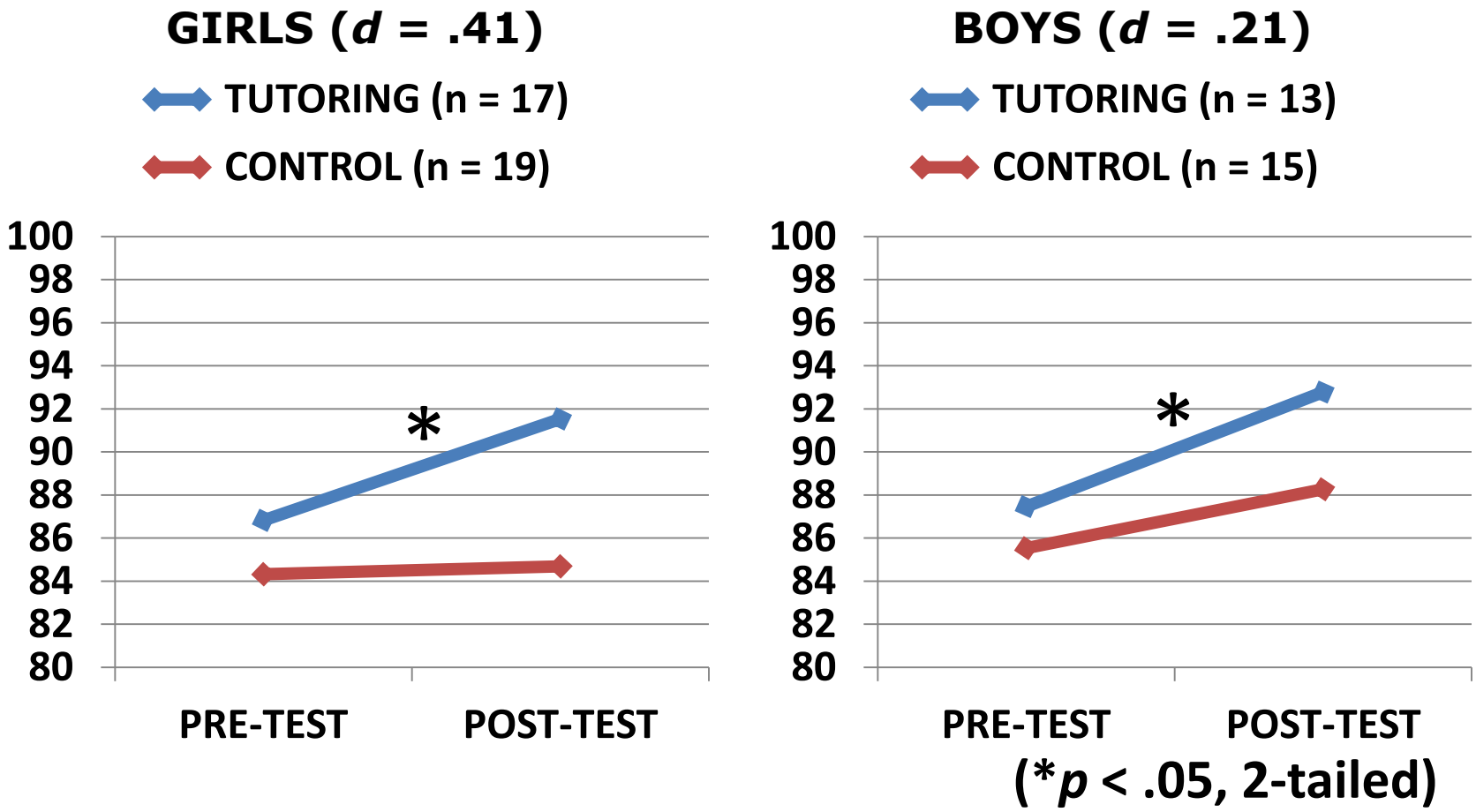




(*$p < .10$, 2-tailed)

WRAT4 Math Computation:

Pre/post change, by gender & condition



(*$p < .05$, 2-tailed)

Summary regarding question 2

Girls:

- Made statistically significant gains on 4 out of 5 WRAT4 outcome measures
- *d* > median of .29 on Word Reading and Math Computation

Boys:

- Made statistically significant gains on 3 out of 5 WRAT4 outcome measures
- *d* > median of .29 on Sentence Comprehension

New tutoring RCTs with children in care

- Our positive results were replicated in an RCT with a mainly Aboriginal sample of foster children (Harper, 2012)
- Two new RCTS in Ontario CASs:
  - A comparison of 20 versus 30 weeks of direct-instruction tutoring
  - An evaluation of effects of attention training on tutoring
- New tutoring RCT in Denmark
- Use of RCTs in intervention research:
  - RCTs have high impact on policy and practice
  - In Ontario, practitioners and managers are now more receptive towards RCTS than 10 years ago

Concluding thoughts

- Tutoring, as the educational intervention for children in care with the strongest evidence of effectiveness to date, should be widely implemented for children who need it
- Some promising interventions with children in care that merit further research on effectiveness:
  - Mentoring (2nd ed., Handbook of Youth Mentoring)
  - Paired reading
  - Letterbox Club (RCT in progress at Queen's U., Belfast)
  - Educational Championship Teams in Ontario
  - Virtual School Headteacher initiative

Thank you for your attention

- **References:** For papers by Forsman & Vinnerljung (2012), Flynn et al. (2012), and Harper & Schmidt (2012), see special issue of ***Children and Youth Services Review, 34* (6), June, 2012,** on improving educational outcomes of young people in care.

- **Contact:** Robert Flynn (rflynn@uottawa.ca).